

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

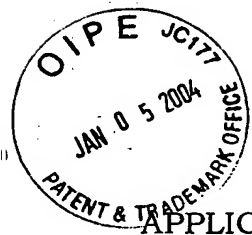
Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

BOX REISSUE
PATENT
1163-0470P



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:

Nobuyoshi **HORIE**
Shigeaki **SUZUKI**

APPLICATION. NO.:

10/659,679
(Original Application Serial Number: 09/155,797)
Reissue of U.S. Patent No. 6,288,796

FILING DATE:

September 11, 2003
(Patent Issued: September 11, 2001)

FOR: **EQUIPMENT AND METHOD FOR TRANSMITTING FACSIMILE SIGNAL**

REISSUE DECLARATION AND POWER OF ATTORNEY

As the below named inventors, we hereby declare as follows:

That our names, residence and citizenship are as indicated below;

That we have reviewed and understand the contents of the attached reissue application including original claims 1-24 and the newly submitted claims 25-35;

That we acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a);

That we verily believe that we are the original, first and only joint inventors of the invention described and claimed in United States Patent No. 6,288,796 entitled "Equipment and Method for Transmitting Facsimile

Signal" and in the foregoing specification for which invention we respectfully solicit a reissue patent;

That we do not know and do not believe that the same invention was ever known or used before our invention or discovery thereof; or patented or described in any printed publication in any country before our invention or discovery thereof, or more than one (1) year prior to the filing of our original application for United States Letters Patent No. 6,288,796 of which that is an application for reissue; or in public use or on sale in the United States of America for more than one (1) year prior to the filing of the original application;

That we do not know and do not believe that the same invention has been patented or made the subject of an inventor's certificate issued before the date of the original application in any country foreign to the United States of America on an application filed by us or our legal representatives or assignees more than twelve (12) months prior to said original application and that no application for patent or inventor's certificate have been filed by us or our legal representatives or assignees in any country foreign to the United States of America before said original application, other than as follows:

<u>Country</u>	<u>Application No.</u>	<u>Filing Date</u>
Japan	9-046746	February 28, 1997
PCT	PCT/JP98/00766	February 25, 1998

That we verily believe that there are errors in the original patent which make such original patent partially inoperative by reason of claiming less than we had a right to claim and that all errors being corrected in the reissue application occurred without any deceptive intent on the part of the applicants;

That the original application was directed to both facsimile transmitting and receiving and various embodiments were disclosed in the original application. The transmission/receive systems and methods of the present invention may be used to prevent or minimize effects of communication disorders;

That while we originally recognized the importance of each of the transmitting and receiving aspects of the invention, we did not understand the importance of claiming these aspects separately and thus, when the original application was prepared, we failed to recognize that claims directed to the transmitting as well as the receiving aspects of the invention were separately needed and thus, we failed to recognize that all of the basic concepts of the invention disclosed in the specification were not covered by the original claims;

That this lack of adequately claiming the invention was due in part to the manner in which facsimile transmitting and receiving apparatuses are designed. In particular, to those skilled in the art of facsimile transmitting and

receiving apparatuses, the design of the facsimile receiving apparatus – given a particular facsimile transmitting apparatus – is apparent;

That we were focused on various embodiments of the transmitting devices and matching receiving devices in describing the present invention;

That we were focused on protecting the apparatus and methods covering the embodiments of the transmitting and receiving devices disclosed without focusing on the need to claim each aspect separately;

That when our corporation's department first prepared the application, we did not question whether the transmitting and receiving devices would be covered individually;

That we assumed that coverage of the combination of transmitting and receiving devices was all that was required in the claims, since both aspects are presented for examination;

That when we executed the Declaration of the original application, we reviewed the application carefully for accuracy, but did not recognize the importance of presenting claims directed to each aspect separately;

That it was not until after the original Letters Patent issued that we discovered the importance of claims and discovered that the original presented claims did not adequately define our invention;

That for this reason, there was an error in the original patent claims which rendered the original patent partially inoperative by failure to adequately claim these aspects of our invention;

That, more specifically, the errors include the failure of the original claims to specifically claim the transmitting and receiving aspects separately as presented in the present reissue application as new claims 25-35 as follows:

25. A facsimile signal transmitting device for transmitting facsimile signals from a facsimile terminal, said facsimile signal transmitting device comprising:

a frame assembling part for generating a frame data by combining a facsimile signal output from said facsimile terminal and a redundancy facsimile signal output from said facsimile terminal before said facsimile signal, and for outputting the frame data onto a transmission line.

26. The facsimile signal transmitting device as recited in claim 25, further comprising a signal storage part for storing said facsimile signal output from said facsimile terminal, wherein said frame assembling part generates the frame data based on facsimile signals stored in said signal storage part.

27. The facsimile signal transmitting device as recited in claim 25, wherein said frame assembling part generates the frame data by combining the facsimile signal output from said facsimile terminal and a plurality of previous facsimile signals also output from said facsimile terminal.

28. The facsimile signal transmitting device as recited in claim 27, wherein said frame assembling part generates the frame data by combining an nth facsimile signal, an (n-1)th facsimile signal output before the nth facsimile signal, and an (n-2)th facsimile signal output before the (n-1)th facsimile signal all output from said facsimile terminal.

29. The facsimile signal transmitting device as recited in claim 25, wherein the facsimile signal is transmitted more than once.

30. The facsimile signal transmitting device as recited in claim 25, wherein said transmission line forms an Asynchronous Transfer Mode (ATM) network or a packet communication network.

31. A facsimile signal receiving device for receiving facsimile signals a facsimile transmitting device, said facsimile signal receiving device comprising:

a frame disassembling part for receiving a plurality of frame data including previous frame data and current frame data, wherein each frame data includes a combination of a facsimile signal and a redundancy facsimile signal; and

a selector which for supplying the facsimile signal of the current frame data upon determination that the frame data is transmitted without being discarded, and for supplying the redundancy facsimile signal of the previous frame data upon determination that the frame data is discarded.

32. The facsimile signal receiving device as recited in claim 31, wherein said frame disassembling part disassembles each frame data into its respective facsimile signal and redundancy facsimile signal, said facsimile signal receiving device further comprising a restored data storage part for storing therein the facsimile signals disassembled by said frame disassembling part, wherein said selector supplies as the redundancy facsimile signal from the facsimile signals stored in said restored data storage part.

33. A method of transmitting facsimile signals output from a facsimile terminal, said method comprising the steps of:

generating frame data by combining a facsimile signal output from the facsimile terminal and a redundancy facsimile signal previously output from the facsimile terminal before the facsimile signal; and

transmitting the frame data onto a transmission line.

34. The facsimile signal transmitting device as recited in claim 25, wherein the redundancy facsimile signal is a previous

facsimile signal previously output by said facsimile terminal.

35. The facsimile signal receiving device as recited in claim 31 wherein the redundancy facsimile signal of the previous frame data corresponds to the facsimile signal of the current frame data.

Applicants hereby offer to surrender the original Letters Patent No. 6,288,796 upon issuance of the reissue application.

Applicants hereby appoint the practitioners at CUSTOMER NO. 02292 as their attorneys or agents to prosecute this application and/or an international application based on this application and to transact all business in the United States Patent and Trademark Office connected therewith and in connection with the resulting patent based on instructions received from the entity who first sent the application papers to the practitioners, unless the inventor(s) or assignee provides said practitioners with a written notice to the contrary:

Send Correspondence to:

BIRCH, STEWART, KOLASCH & BIRCH, LLP or CUSTOMER NO. 02292

P.O. Box 747 • Falls Church, Virginia 22040-0747

Telephone: (703) 205-8000 • Facsimile: (703) 205-8050

WHEREFORE, the Petitioners hereby offer to surrender, upon the allowance of said application, the original of said Letters Patent and prays that Letters Patent be reissued to Petitioners for the invention of patent claims 1-24 with newly presented claims 25-35.

The undersigned declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize validity of the application or any reissue patent issuing thereon.

Nobuyoshi HORIE

Signature: Nobuyoshi Horie

Date: November 25, 2003

Residence: c/o Mitsubishi Denki Kabushiki Kaisha
2-3, Marunouchi 2-chome, Chiyoda-ku
Tokyo 100-8301, JAPAN

Citizenship: Japan

P.O. Address: same as above

Shigeaki SUZUKI

Signature: Shigeaki Suzuki

Date: November 25, 2003

Residence: c/o Mitsubishi Denki Kabushiki Kaisha
2-3, Marunouchi 2-chome, Chiyoda-ku
Tokyo 100-8301, JAPAN

Citizenship: Japan

P.O. Address: same as above



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

FEBRUARY 17, 1999

PTAS

BIRCH, STEWART, KOLASCH & BIRCH, LLP
MICHAEL K. MUTTER
P.O. BOX 747
FALLS CHURCH, VA 22040-0747



100863233A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 10/06/1998

REEL/FRAME: 9536/0086
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

HORIE, NOBUYOSHI

DOC DATE: 09/30/1998

ASSIGNOR:

SUZUKI, SHIGEAKI

DOC DATE: 09/30/1998

ASSIGNEE:

MITSUBISHI DENKI KABUSHIKI KAISHA
2-3, MARUNOUCHI 2-CHOME, CHIYODA-
KU
TOKYO, JAPAN 100-8301 8310

SERIAL NUMBER: 09155797
PATENT NUMBER:


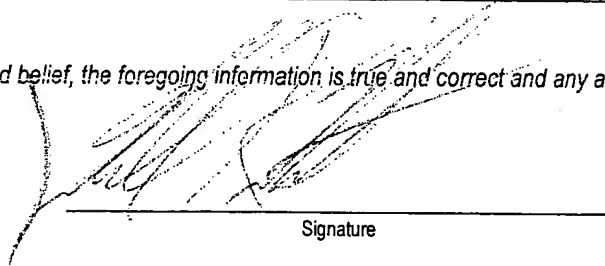
FILING DATE: 10-06-98
ISSUE DATE:

9536/0086 PAGE 2

JEEVON JONES, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

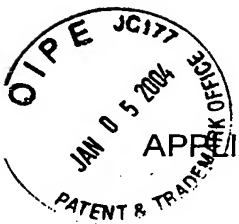
10-30-1998

09/155797
300 Rec'd PCT/PTO 06 OCT 1998

To the Honorable Commissioner of		 100863233	Attached original documents or copy thereof.
1. Name of conveying party(ies): HORIE, Nobuyoshi; SUZUKI, Shigeaki Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies) Name: MITSUBISHI DENKI KABUSHIKI KAISHA Internal Address: Street Address: 2-3, Marunouchi 2-chome, Chiyoda-ku, City: Tokyo State: ZIP: 100-8301 Country: Japan Postal Code: Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: MRD 10-6-98	Execution Date: September 30, 1998		
4. Application number(s) or patent number(s): New If this document is being filed together with a new application, the execution date of the application is: September 30, 1998			
A. Patent Application No(s). 09/155797	B. Patent No.(s) Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Name and address of party to whom correspondence concerning document should be mailed: Name: BIRCH, STEWART, KOLASCH & BIRCH, LLP Internal Address: Street Address: P.O. BOX 747 City: FALLS CHURCH State: VA ZIP: 22040-0747 Country: USA	6. Total number of applications and patents involved: One (1) 7. Total fee (37 C.F.R. § 3.41): \$40.00 <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to be charged to deposit account 8. Deposit account number: 02-2448 (Attach triplicate copy of this page if paying by deposit account)		
DO NOT USE THIS SPACE			
9. Statement and signature. <p style="text-align: center;"><i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document</i></p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 30%;"> <u>Michael K. MUTTER #29,680</u> Name of Person Signing/Reg. No. </div> <div style="width: 30%; text-align: center;">  Signature </div> <div style="width: 30%; text-align: right;"> <u>October 6, 1998</u> Date </div> </div>			
Total number of pages including cover sheet, attachments, and document: 3			

Mail documents to be recorded with required cover sheet information to:
 Commissioner of Patents & Trademarks, Box Assignments
 Washington, DC 20231

BOX REISSUE
PATENT
1163-0470P



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Nobuyoshi HORIE
Shigeaki SUZUKI

APPLICATION. NO.: 10/659,679
(Original Application Serial Number 09/155,797)
Reissue of U.S. Patent No. 6,288,796

FILING DATE: September 11, 2003
(Patent Issued: September 11, 2001)

FOR: EQUIPMENT AND METHOD FOR TRANSMITTING
FACSIMILE SIGNAL

CERTIFICATE UNDER 37 C.F.R. § 3.73(b)
SHOWING CHAIN OF TITLE

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Mitsubishi Denki Kabushiki Kaisha certifies that it is the assignee of the patent application or issued patent identified above by virtue of:

- ☒ An assignment from the inventor(s) of the patent application or issued patent identified above. The assignment was recorded in the Patent and Trademark Office at Reel 9536, Frames 0086-0088, a copy thereof is attached.

The undersigned has reviewed all the documents in the chain of title of the patent application or issued patent identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

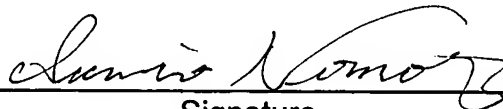
The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and

further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

November 25, 2003

Date



Signature

Sumio NOMOTO

Typed or printed name

General Manager,
Patent Administration Department

Title